

M.O.H. Report,
1929—30.



City of Johannesburg.

REPORT of the MEDICAL OFFICER OF HEALTH on the PUBLIC HEALTH and SANITARY CIRCUMSTANCES of JOHANNESBURG during the Year 1st JULY, 1929—30th JUNE, 1930.

ARTHUR J. MILNE, M.B., Ch.B., D.P.H., D.T.M.

Medical Officer of Health; Hon. Cons. Medical Officer of the Rand Water Board; Medical Officer under Native Labour Regulations, Johannesburg Mining District; Member Board of Examiners, Royal Sanitary Institute; Lieut.-Colonel (Specialist Hygiene Officer), Union Defence Force.

JOHANNESBURG,

DECEMBER, 1930.



Johannesburg:

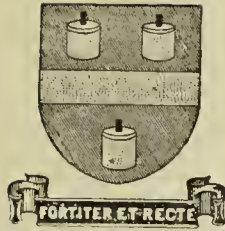
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Report of the Medical Officer of Health, 1929—1930.

Public Health Department,
City Hall,
Johannesburg,
December, 1930.

TO HIS WORSHIP THE MAYOR (Mr. Councillor G. W. NELSON) and
CITY COUNCILLORS OF THE CITY OF JOHANNESBURG.

GENTLEMEN,

I have the honour to present herewith my report of the health conditions of Johannesburg for the year 1929-30.

It is a pleasure to be able to record that the work of all members, professional, clerical and technical, of your Public Health Department has been consistently good, and has maintained the high level befitting the largest city in the Union of South Africa. Personally and officially I desire to acknowledge gratefully their valued assistance, often in difficult situations, and their loyalty both to the Council which they serve and myself.

A detailed record for the year of inspections, etc., undertaken by the inspectorate staff is submitted on page 27.

I also desire to express my thanks in particular to the occupant of the Mayoral Chair during 1929-30, Councillor David Anderson, and to the Chairman (Mr. Councillor S. Hancock) and members of the Public Health Committee who extended to me much kindly assistance and courtesy, and to all other Heads of Departments for their kindly co-operation.

I have the honour to be, Gentlemen,

Your obedient servant,

A. J. MILNE,
Medical Officer of Health.

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CITY OF JOHANNESBURG.

PUBLIC HEALTH COMMITTEE, 1929-1930.

Councillor S. Hancock (Chairman).
 Councillor W. H. Port (Vice-Chairman).
 Councillor A. R. Bloch.
 Councillor H. A. Butler.
 Councillor W. Fearnhead.
 Councillor H. E. Jackson.
 Councillor R. Thompson.
 Councillor J. J. Page.
 His Worship the Mayor (ex officio).

PUBLIC HEALTH DEPARTMENT.

STAFF.

Administrative and Office—

- 1 Medical Officer of Health: Arthur J. Milne, M.B., B.Ch., D.P.H., D.T.M.
- 1 Assistant Medical Officer of Health: John Joseph Middleton, M.B., M.C.P.S. (Ontario), D.P.H.
- 1 Chief Clerk: F. Thompson, Cert. R.S.I. (S.A.).
- 1 Typist Correspondent: Miss E. Oliver.
- 1 Licensing Clerk and Typist: Miss O. V. Joel.
- 1 Junior Clerk: W. van Derau.
- 1 Messenger: J. Boshof.

Inspectorial Staff—

- 1 Chief Sanitary Inspector: G. Bidwell, Cert. R.S.I. (Eng.).
- 1 Plans Inspector: C. J. Crothall, Cert. R.S.I. (Eng.).
- 20 District Sanitary Inspectors:

A. Beale.	J. W. Forrett.	J. H. Haskins.
A. C. Fraser.	E. Hewitson (left	J. S. Russell.
A. C. Lumsden.	April, 1930).	E. C. Heather.
J. R. Sabiston.	F. I. Hamilton.	W. C. E. Lewis.
P. Squires.	I. J. Distiller.	F. Smith.
A. Patterson.	E. A. Smorenburg.	W. J. Wilson.
M. J. Doyle.	N. A. Meintjes.	H. Ballantyne.

All Certified Royal Sanitary Institute (S.A.).

2 Probationary Sanitary Inspectors:

E. M. Coetzee.
 M. A. Elyat.

2 Mines Sanitation Inspectors:

J. Smith, Cert. R.S.I. (S.A.).
 J. S. Pitman, Cert. R.S.I. (S.A.).

2 Food and Drug Inspectors:

F. A. Wrighton, Cert. R.S.I. (S.A.).
 S. G. Russell, Cert. R.S.I. (S.A.).

3 Dairy Inspectors:

W. C. Watson, Cert. R.S.I. (S.A.).
 G. Christie, Cert. R.S.I. (S.A.).
 A. McIver, Cert. R.S.I. (S.A.).



Infectious Diseases and Disinfecting Station—

- 1 Infectious Diseases Inspector: C. Wallace, Cert. R.S.I. (Eng.).
- 1 Disinfecting Inspector W. Murphy (died, November, 1929; not replaced).
- 2 Assistant Disinfecting Inspectors: J. A. M. Bain and H. J. Hancock.
- 1 Disinfecting Engineer: J. P. Jonas, six native assistants.

Maternity and Child Welfare—

- 1 Pediatric Officer:
B. G. v. B. Melle, M.B., B.Ch. (Oxford), F.R.C.S.E.
 - 2 Obstetric and Ante-Natal Officers:
W. H. Maxwell. M.A., M.B., L.R.C.P., F.R.C.S.
F. K. Te Water, M.B., B.Ch., L.R.C.P., F.R.C.S.E.
 - 1 Senior Health Visitor:
C. Morisse.
 - 5 Health Visitors:
(1) M. G. Ferris.
(2) E. Ide.
(3) M. Craig.
(4) G. K. Jordan.
(5) H. M. Townshend.
 - 4 Ante-Natal Nurses:
(1) E. Orn.
(2) G. G. White.
(3) B. M'Innes.
(4) L. W. Godfrey.
- | | |
|---|---|
| } | All Trained General Nurses and Midwives
and all certificated Health Visitors and
School Nurses, Royal Sanitary Institute. |
| } | No. (1), Cert. R.S.I. (S.A.). |
| } | No. (2), Cert. R.S.I. (S.A.), Sanitary
Inspector and Meat and Food Inspection. |
| } | All Trained General Nurses and Midwives. |
| } | No. (1), Cert. R.S.I. (S.A.), Health Visitor
and School Nurse. |

Fever Hospital—

- 1 Physician: H. A. Loeser, M.D.
- 1 Resident Medical Officer.
- Nursing Staff:
Permanent: 1 Matron, 3 Sisters.
Temporary: 1 Staff Nurse, 8 Probationers.
- Administrative: 1 Clerk.
- General: 9 and 18 Natives.

Venerical Diseases Clinic—

- 1 Director: H. Gluckman, M.R.C.S. (Eng.), L.R.C.P. (Lond.)
- 1 Clinic Orderly (Male).
- 2 Nursing Sisters.

Plague Rat-catching Staff—

- 1 Senior Rodent Inspector: R. J. Fox.
- 9 Rat-catchers.
- 7 Rat-catching Youths.

Death of a Member of the Staff:—

It is recorded with much regret that Mr. W. Murphy died in November, 1929.

Report, 1st July, 1929—30th June, 1930.

CLIMATE AND RATEABLE VALUE.

Latitude.—26 degrees 11 minutes 44 seconds South.

Longitude.—1 hour 52 minutes 10 seconds East.

Mean Altitude.—5,850 feet.

Climate.—The days are bright and warm, the nights cool, and in winter often very cold. The following averages of Johannesburg records for sixteen years are kindly supplied by R. T. A. Innes, Esq., until recently Union Astronomer: Temperature, average maximum, 69·6 degrees F., average minimum 49·5 degrees F. Rainfall, 30·74 inches on 96 days. Relative humidity, 65·5 at 8.30 a.m. Bright sunshine, 8·9 hours daily.

Area.—The area of the city of Johannesburg is 52,330 acres (*vide Government Gazette*, October, 1903), the extreme length $11\frac{1}{2}$ miles, extreme breadth $9\frac{1}{2}$ miles, extent of perimeter $41\frac{1}{2}$ miles.

Annual Rateable Value.—As assessed in accordance with Ordinance 13 of 1928, and representing “the full and fair price or sum which the same would realise if brought at the time of valuation to voluntary sale,” was in 1929-30 £62,187,085.

The rate for 1929-30 was $6\frac{1}{4}$ d. in the £ on land. Rate produced £554,285 4s. 7d.; Special Road Rate, 1d. in the £ on land, producing £77,321 2s. 11d. Total, £631,606 7s. 6d.

In 1929-30 the valuation was: Land, £20,334,756; improvements, £41,852,329.

POPULATION.

		Census, 3rd May, 1926.		Estimated, 30th June, 1930.
Whites	...	168,320	...	182,000
Natives	...		...	146,500
Eurafrians	...		...	18,000
Asiatics	...		...	7,500
Totals	...		...	354,000

BIRTHS.

From 1st July, 1929, to 30th June, 1930, the number of white births registered was 4,668, as compared with 4,197 and 4,672 in 1927-28 and 1928-29 respectively.

The *white birth-rate* was 25·64 per 1,000 for 1929-30, the two previous years being 23·74 and 25·95.

For “The 107 Great Towns” of England and Wales in 1929 the birth-rate was 16·3, in Pretoria 22·13, in Capetown 21·84, and in Durban 16·06 for 1929-30.

White Illegitimate Births.—These numbered 156, and constituted 3·34 per cent. of all births, as against 4·6 in England and Wales in 1929, 4·98 in Capetown, 3·90 in Durban, and 3·55 in Pretoria in 1929-30.

It is worthy of comment that the white birth-rate of Johannesburg is considerably higher than the rates of other large towns in the Union and not very far short of double the rate for the great towns of England and Wales. On the other hand, it is gratifying to be able to record that the illegitimate birth-rate remains lower than in other large towns in the Union and England and Wales.

The *native and coloured births* registered during 1929-30 numbered 1,873, as against 1,734 and 1,920 in 1927-28 and 1928-29 respectively. But as the ratio of females to males in the native and coloured population is only about 1 to 7, it would merely mislead to strike a birth-rate.

The numbers, however, indicate very clearly what continues to happen in Johannesburg, as elsewhere in European areas in South Africa, which is that in spite of the Natives (Urban Areas) Act and its amendments, urban areas are threatened with the complex problem of dealing with a large and increasing mass of detribalised natives, who are not only unnecessary for the city's domestic and industrial requirements, but whose presence in the city implies grave handicaps in respect of native housing and the clearance of slum properties. In this regard it is not only necessary but incumbent that the Council should at an early date take steps in virtue of their powers under the Natives (Urban Areas) Act to provide a sufficiency of native housing accommodation, in order to permit the Council to control a future influx of natives, tribalised or detribalised, into its area.

DEATHS AND DEATH-RATES.

The deaths herein referred to are those of persons who died within the extended Municipal Area as defined by proclamations 13 of 1902 and 46 of 1903:—

DEATHS.

Year	Whites	Natives	Eurafricans	Asiatics	All Persons
1910-11	1,493	3,108	229	99	4,929
1911-12	1,505	2,683	270	80	4,538
1912-13	1,411	2,907	229	103	4,650
1913-14	1,204	1,706	208	89	3,207
1914-15	1,453	1,890	296	107	3,746
1915-16	1,338	2,095	227	85	3,745
1916-17	1,852	2,061	324	132	4,369
1917-18	1,661	1,737	273	118	3,789
1918-19	2,261	2,843	447	263	5,814
1919-20	1,632	2,110	303	126	4,171
1920-21	1,710	2,194	373	114	4,391
1921-22	1,758	1,891	330	145	4,124
1922-23	1,610	1,994	319	111	4,034
1923-24	1,562	2,314	321	143	4,340
1924-25	1,568	2,213	345	142	4,268
1925-26	1,600	2,238	309	114	4,261
1926-27	1,801	2,621	354	139	4,915
1927-28	1,858	2,696	440	137	5,131
1928-29	1,989	2,795	504	143	5,231
1929-30	1,942	3,115	339	172	5,568

DEATH-RATES.

DEATH-RATES (excluding non-residents)	White		Natives	Eur- africans	Asiatics	All Persons
	Gross	*Corrected for Age and Sex distrib.				
1910-11	13.3	15.2976	33.6	31.1	19.7	23.4
1911-12	11.6	13.3423	25.5	24.4		18.9
1912-13	10.52	12.10	27.63	23.21		18.68
1913-14	8.98	10.32	16.34	21.19		12.66
1914-15	10.84	†	18.00	28.11		14.39
1915-16	9.55	—	19.95	21.81		14.32
1916-17	12.04	—	16.73	23.21		14.69
1917-18	10.55	—	14.14	20.25		12.69
1918-19	16.06	—	26.94	38.15		21.94
1919-20	10.88	—	17.58	27.54	25.20	14.58
1920-21	11.07	—	17.90	33.86	21.07	14.96
1921-22	10.98	—	17.19	29.96	26.80	14.39
1922-23	10.06	—	16.43	29.25	20.72	13.55
1923-24	9.76	—	19.06	29.43	26.70	14.61
1924-25	9.31	—	17.75	23.53	23.90	13.72
1925-26	9.50	—	17.95	25.56	19.19	13.70
1926-27	10.46	—	18.77	27.57	22.78	14.85
1927-28	10.50	—	18.52	31.16	21.39	14.96
1928-29	11.05	—	19.07	17.88	20.42	14.92
1929-30	10.67	—	21.62	18.83	22.93	15.72

* Factor for correction 1.502. † No factor available.

DEATH-RATE IN BRITISH, COLONIAL AND FOREIGN CITIES.

Appended, for purposes of comparison, are particulars as to the “ Death-rate per 1,000 from All Causes ” in large cities in other parts of the world:—

Greater London (i.e., Metro- politan and City Police Districts)				JOHANNESBURG—			
“ Great Towns ” of England and Wales				Whites ... ..	...	...	10.67 (1929-30)
East London				Natives ... ..	...	...	21.62 ”
Durban				Eurafricans ... ..	...	...	18.83 ”
Kimberley				Asiatics ... ..	...	...	22.93 ”
Bloemfontein				All Persons ... ..	...	...	15.72 ”
Capetown							
Pretoria							
Pietermaritzburg							

Except in regard to South African towns, these figures are taken from the Statistical Review of the Registrar-General for England and Wales, 1929. Whilst the mortality rate for Natives in the year under review is higher than it has been in the last ten years, it will be noted that the mortality rate for Euraficans and Asiatics is less than the average for the past ten years, and that the European rate is as low as it has been in the last four years, despite the so-called economic depression existing. The rate is considerably lower than that of the Great Towns of England and Wales.

CAUSES OF DEATH.

The causes of and ages at death and the local distribution are analysed in the usual Tables A to D for "Whites," "Natives," "Eurafricans" and "Asiatics" respectively. For reasons of economy, these voluminous tables have not, however, been printed, but are available for inspection.

FACTORS OF MORTALITY, 1927-28, 1928-29 AND 1929-30.

DISEASE		1927-28		1928-29		1929-30		DISEASE		1927-28		1928-29		1929-30	
		Deaths	Rates	Deaths	Rates	Deaths	Rates			Deaths	Rates	Deaths	Rates	Deaths	Rates
Enteric Fever ...	W.	19	0·10	26	0·14	19	0·10	Diseases of the Heart ..	W.	191	1·08	273	1·51	301	1·65
	N.	103	0·70	99	0·60	86	0·58		N.	68	0·46	132	0·90	123	0·83
	E.	—	—	5	0·29	1	0·05		E.	19	1·31	17	1·00	29	1·61
	A.	1	0·15	2	0·28	1	0·13		A.	7	1·09	17	2·42	10	1·33
Measles ...	W.	15	0·08	5	0·02	1	0·005	Acute Bronchitis ...	W.	37	0·20	24	0·13	25	0·13
	N.	20	0·13	7	0·04	4	0·02		N.	143	0·98	82	0·55	98	0·66
	E.	3	0·21	—	—	1	0·05		E.	31	2·19	12	0·70	13	0·72
	A.	1	0·15	1	0·14	—	—		A.	19	2·96	8	1·14	10	1·33
Scarlet Fever ...	W.	14	0·07	15	0·08	—	—	Chronic Bronchitis ...	W.	41	2·31	56	0·31	47	0·25
	N.	—	—	—	—	1	0·006		N.	17	0·11	17	0·11	22	0·15
	E.	—	—	—	—	—	—		E.	6	0·42	5	0·29	11	0·67
	A.	—	—	—	—	—	—		A.	—	—	3	0·42	12	1·60
Whooping Cough ...	W.	19	0·10	11	0·06	6	0·02	Pneumonia ..	W.	260	1·47	271	1·50	316	1·74
	N.	13	0·08	13	0·08	12	0·07		N.	742	5·09	804	5·48	1,030	7·03
	E.	3	0·21	1	0·05	3	0·16		E.	63	4·46	56	3·29	86	4·77
	A.	—	—	2	0·28	—	—		A.	34	5·30	49	7·00	57	7·66
Diphtheria and Croup ...	W.	21	0·11	15	0·08	17	0·09	Silicosis ...	W.	64	0·36	40	0·22	33	0·18
	N.	—	—	4	0·02	2	0·01		N.	24	0·16	11	0·07	14	0·09
	E.	—	—	1	0·05	—	—		E.	3	0·21	1	0·05	5	0·27
	A.	—	—	—	—	—	—		A.	—	—	—	—	—	—
Influenza ...	W.	21	0·11	26	0·14	13	0·07	Other Respiratory Diseases ...	W.	32	0·17	32	0·17	37	0·20
	N.	16	0·10	13	0·08	13	0·08		N.	33	0·22	23	0·15	38	0·25
	E.	2	0·14	1	0·05	—	—		E.	2	0·14	3	0·17	1	0·05
	A.	1	0·15	1	0·14	1	0·13		A.	1	0·15	3	0·42	3	0·40
Tuberculosis of Lungs ...	W.	53	0·29	51	0·28	65	0·35	Diarrhoea and Enteritis ...	W.	106	0·59	116	0·63	118	0·65
	N.	172	1·16	190	1·29	189	1·29		N.	338	2·32	370	2·52	489	3·33
	E.	21	1·20	24	1·41	27	1·50		E.	66	4·67	51	3·00	51	2·72
	A.	5	0·78	7	1·00	7	0·93		A.	19	2·96	10	1·42	19	2·53
Other Forms of Tuberculosis...	W.	13	0·07	5	0·02	9	0·04	Acute Nephritis and Bright's Disease ...	W.	90	0·50	88	0·55	75	0·41
	N.	112	0·76	92	0·62	54	0·36		N.	69	0·47	59	0·40	41	0·27
	E.	9	0·63	5	0·29	3	0·16		E.	5	0·35	4	0·23	11	0·61
	A.	1	0·15	4	0·57	1	0·13		A.	8	1·09	3	0·42	6	0·80
Cancer ...	W.	138	0·78	170	0·94	176	0·96	Congenital Malformation Premature & Early Infancy	W.	93	0·52	138	0·76	130	0·71
	N.	21	0·14	28	0·19	23	0·15		N.	90	0·61	149	1·01	179	1·22
	E.	8	0·33	10	0·58	12	0·66		E.	12	0·84	38	2·11	36	2·00
	A.	1	0·15	3	0·42	4	0·53		A.	1	0·15	6	0·85	13	1·73
Meningitis ...	W.	36	0·20	55	0·30	29	0·10	Violent Deaths	W.	134	0·75	158	0·87	121	0·66
	N.	87	0·59	73	0·49	74	0·50		N.	269	1·84	301	2·05	345	2·35
	E.	9	0·56	4	0·23	2	0·11		E.	12	0·84	19	1·11	13	0·72
	A.	2	0·31	3	0·42	2	0·26		A.	4	0·62	5	0·71	4	0·53
Cerebral Hæmorrhage and Softening	W.	75	0·42	62	0·34	37	0·20								
	N.	18	0·12	23	0·15	21	0·14								
	E.	6	0·42	5	0·29	7	0·38								
	A.	2	0·31	1	0·14	2	0·26								

The following observations are suggested by inspection of this table:—

(1) That during 1929-30 the chief factors of mortality were:—

(a) *For Whites.*—Pneumonia (316), heart diseases (301), cancer (176), congenital debility (130), violent deaths (121), diarrhoea and enteritis (118), acute nephritis and Bright's disease (75), tuberculosis of lungs (65), chronic bronchitis (47), cerebral hæmorrhage (37), other respiratory diseases (37), silicosis (33), meningitis (29), acute bronchitis (25), enteric fever (19), diphtheria (17), and influenza (13).

(b) *For Natives*.—Pneumonia (1,030), diarrhœa and enteritis (489), violent deaths (345), tuberculosis of lungs (189), congenital debility (179), heart diseases (123), acute bronchitis (98), enteric fever (86), meningitis (74), other forms of tuberculosis (54), acute nephritis and Bright's disease (41), other respiratory diseases (38), cancer (23), chronic bronchitis (22), cerebral hæmorrhage (21), silicosis (14) and influenza (13).

(c) *For Eurafrians*.—Pneumonia (86), diarrhœa and enteritis (51), congenital debility (36), heart diseases (29), tuberculosis of lungs (27), violent deaths (13), acute bronchitis (13), cancer (12), chronic bronchitis (12) and nephritis (11).

(d) *For Asiatics*.—Pneumonia (57), diarrhœa and enteritis (19), congenital debility (13), chronic bronchitis (12), heart diseases (10), acute bronchitis (10) and tuberculosis of lungs (7).

(2) That the comparison with the two previous years is as follows:—

(a) *As regards Whites*, the principal increases are in respect of heart disease, 301 as compared with 273 in 1928-29 and 196 in 1927-28; pneumonia, 316 as compared with 271 in 1928-29 and 260 in 1927-28; cancer, 176 as compared with 170 in 1928-29 and 138 in 1927-28; diarrhœal disease, 118 as compared with 116 in 1928-29 and 106 in 1927-28. There was no mortality from the exanthematous diseases, no deaths from scarlet fever being recorded. The rate from enteric fever is lower than in 1928-29 and equal to 1927-28, being 0·10 as compared with 0·14 and 0·10.

(b) *As regards Natives*, the principal increases are in respect of pneumonia, 1,030 as compared with 804 in 1928-1929 and 742 in 1927-28; diarrhœa and enteris, 489 as compared with 370 in 1928-29 and 338 in 1927-28; and violent deaths, 345 as compared with 301 in 1928-29 and 269 in 1927-28. There has also been an increase in congenital debility and acute bronchitis. Pneumonia accounts for no less than 33 per cent. of all native deaths.

(c) *As regards Eurafrians*, the principal increases are in respect of pneumonia, 86 as compared with 56 in 1928-29 and 63 in 1927-28; heart diseases, 29 as compared with 17 in 1928-29 and 19 in 1927-28; and tuberculosis of lung, 27 as compared with 24 in 1928-29 and 21 in 1927-28.

(d) *As regards Asiatics*, increase has occurred in respect of pneumonia, 57 as compared with 49 in 1928-29 and 34 in 1927-28. Decreases are recorded in respect of acute bronchitis and heart diseases.

Adverting to the Table of Deaths and Death-Rates (page 8), it will be noted that in all classes, though the total deaths in 1929-30 exceeded those in 1928-29 by 337, and those in 1927-28 by 437, the death-rate (15·72) is higher than in 1928-29, when it was 14·92, and also higher than in 1927-28, when it was 14·96.

A glance at the same figures for pneumonia (page 9) reveals that both the incidence and death-rates are increasing. In 1927-28 1,099 deaths from pneumonia occurred, in 1928-29 1,180, and in 1929-30 1,489. The latter figure represents 26·7 per cent. of the total deaths, and exposes indubitably that pneumonia is much the most formidable disease in Johannesburg. The deaths from diseases of the heart also show a remarkable increase, numbering 285 in 1927-28, 439 in 1928-29, and no less than 463 in 1929-30. The incidence of violent deaths amongst natives also shows a substantial increase on previous years, no doubt due, at least in some degree, to an increase in traffic accidents.

INFANTILE MORTALITY, MATERNAL MORTALITY AND MATERNITY AND CHILD WELFARE MEASURES.

Infantile Mortality, i.e., deaths of infants under one year per each 1,000 births registered, was: Whites 78·62, Eurafrians 210·19, and Asiatics 174·87.

The following table shows the white infantile mortality rate in recent years:—

1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30
86·60	88·26	81·2	78·55	74·01	83·29	83·39	72·77	78·62

Whilst this rate is higher than last year's record lowest rate, it is, considering the economic depression, which is a considerable factor in infant upbringing, satisfactory, especially taking into account the high birth-rate.

DISTRIBUTION OF INFANTILE MORTALITY IN DISTRICTS OF JOHANNESBURG.

	1927-28			1928-29			1929-30		
	Births	Deaths under 1 year	Rate per 1,000 Births	Births	Deaths under 1 year	Rate per 1,000 Births	Births	Deaths under 1 year	Rate per 1,000 Births
1.—Johannesburg Proper	54	8	148·14	112	14	125·00	70	11	157·14
2.—Braamfontein, Hospital Hill and Hillbrow	992	39	39·31	1,044	38	36·39	1,164	46	39·51
3.—Ferreiras, Marshalls and City and Suburban	57	7	122·80	36	11	305·55	42	8	190·64
4.—Newtown, Fordsburg and Mayfair ...	362	41	113·25	385	41	106·49	361	44	121·88
5.—Vrededorp and Malay Location ...	199	18	90·45	257	31	120·62	306	33	107·84
6.—Jeppes, Jeppes Exten., Belgravia, etc. ...	645	46	71·31	707	40	56·57	739	56	75·77
7.—Doornfontein, Troyeville, Kensington and Bezuidenhout Valley Districts ...	525	54	102·87	533	38	71·29	519	35	67·43
8.—Berea, Yeoville, Bellevue and North-Eastern Districts	205	16	78·04	235	16	68·08	236	21	88·98
9.—Richmond, Auckland Park, Parktown and North-Western Districts	483	52	107·66	552	42	76·08	439	49	111·61
10.—Paarlshoop and Western Mines	49	6	123·27	60	5	83·33	66	6	90·90
11.—Central Mines (Ferreira to City and Suburban)	32	—	—	28	3	107·14	30	5	166·66
12.—Prospect Township and Eastern Mines ...	41	7	170·73	79	5	63·29	68	7	102·94
13.—Ophirton, Booysens and Southern Distrs.	553	56	101·26	644	56	86·95	628	46	73·24
TOTALS	4,197	350	83·39	4,672	340	72·77	4,668	367	78·62

MATERNAL MORTALITY.

	Puerperal Sepsis per 1,000 Births		Other Causes per 1,000 Births		All Causes per 1,000 Births	
	Joh'burg	E. & W.	Joh'burg	E. & W.	Joh'burg	E. & W.
1914-15	1.46	1.63 (1914)	1.94	2.32	3.40	3.95
1915-16	1.44	1.56 (1915)	2.16	2.38	3.60	3.94
1916-17	1.45	1.47 (1916)	2.18	2.40	3.63	3.87
1917-18	1.43	1.39 (1917)	2.85	2.27	4.28	3.66
1918-19	0.71	1.35 (1918)	2.63	2.20	3.35	3.55
1919-20	1.38	1.76 (1919)	4.38	2.36	5.76	4.12
1920-21	1.42	1.87 (1920)	3.31	2.25	4.73	4.12
1921-22	1.34	1.46 (1921)	2.90	2.25	4.25	3.71
1922-23	1.47	1.46 (1922)	3.23	2.12	4.72	3.58
1923-24	1.49	1.30 (1923)	4.96	2.30	6.45	3.60
1924-25	1.26	1.39 (1924)	4.79	2.50	6.06	3.89
1925-26	1.50	1.56 (1925)	4.00	2.51	5.50	4.07
1926-27	1.72	1.59 (1926)	1.97	2.52	3.69	4.11
1927-28	3.33	1.56 (1927)	1.90	2.55	5.23	4.11
1928-29	1.49	1.79 (1928)	2.35	2.63	3.85	4.42
1929-30	1.07	—	2.77	—	3.85	—

The improvement shown in this rate in 1928-29 has been maintained in 1929-30. It will be noted also that the rate from puerperal sepsis is remarkably low—so low as to be worthy of comment in these days when the necessity of providing more and better trained midwives is being so particularly urged. No doubt that urge applies to the rural areas of the Union, but its necessity is far from alarming, and is a considerable tribute to the efficacy of the maternal deaths from puerperal sepsis in 4,668 births in the white population is far from alarming, and is a considerable attribute to the efficacy of the aseptic methods practised by both qualified and unqualified midwives in Johannesburg. In this connection it is extremely gratifying to be able to report that not a single case of puerperal sepsis, much less a death, occurred in the practice of the Council's Ante-Natal Nurses (District Midwives), even though their practice is confined to the very poorest class of mothers. This result goes far to show the necessity and desirability of all large Local Authorities embracing Ante-Natal and District Midwifery schemes in their public health programmes. Such schemes, it is considered, should particularly include the provision of a sufficiency of Ante-Natal Clinics, where the conditions of expectant mothers can be so readily dealt with and corrected.

MATERNITY AND CHILD WELFARE MEASURES.

The following table summarises the attendance at the Post-Natal and Ante-Natal Clinics, the work of the Health Visitors in their districts, and the work carried out in the Council's Native Townships:—

1.—GENERAL SUMMARY.

Number of		Mothers referred to		Infants sent to Children's Hospital and O.P.D.	Infants Reported to Children's Aid Society	Mothers Attending		Cases Referred to Pediatric Officer	Ante-Natal Clinic	Assisted at Clinics
First Visits	Re-visits	Maternity Hospital	District Midwife			Welfare Clinics	Health Visitors' Office			
2,090	8,091	258	190	248	15	26,115	299	891	1,164	7,992

2.—BIRTHS INVESTIGATED.

Legitimate: 2,044. Illegitimate: 49. Full Time: 2,044. Premature: 35. Stillborn: 14.

Attended by			Condition of Mother				Condition of Infant				Condition of Home						
Doctor	Midwife		Friends	Good	Fair	Poor	Sick	Good	Fair	Poor	Sick	Dead	Good	Fair	Bad	Clean	Dirty
	Trained	Untrained															
188	1,251	835	4	1,925	121	10	34	1,973	50	10	10	50	1,573	510	7	2,088	2

3.—METHODS OF FEEDING.

Breast Milk	Cow's Milk	Tinned Milk	Breast and Complemental	Other Foods	Feeding Bottles				Comforter Used
					Pattern		Condition		
					Good	Bad	Good	Bad	
1,950	37	21	17	15	62	1	62	1	501

4.—NATIVE TOWNSHIPS.

First Visits	Re-visits	Referred to Native Midwife	Welfare Clinics and Office Attendances	Breast	Feeding Other	Comforter Used
279	8,093	63	4,186	279	Nil	15

Breast Feeding.—The percentage of wholly or partially breast-fed infants is the highest on record, being 94·1 per cent. of the total of the infants supervised by the Child Welfare Staff. This very high percentage is a striking tribute to the persuasive and sometimes insistent methods adopted by the Health Visitors to obtain breast feeding in as many cases as possible. No doubt it is also in part due to the policy of the Department in providing accessory food-stuffs when necessary to the poorer nursing mothers, who would otherwise be unable to feed or continue to feed their infants.

STAFF AND CLINICS.

Health Visitors.—The Council employs one Senior Health Visitor and five Health Visitors, who are engaged solely on post-natal measures, principally among the European population, but also recently in respect of the native population in the Council's Native Townships, where Clinics have been established under the supervision of the Senior Health Visitor. All the Health Visitors are qualified general nurses and midwives, and in addition hold the certificate of the Royal Sanitary Institute for Health Visitors and School Nurses. Infant Clinics are held weekly at the Central Clinic (New Market Buildings), Milner Park School, Jeppes Central School, the Dutch Medium School, Turfontein, and Newlands English Medium School. Infant Clinics for Natives are conducted weekly at the Western and Eastern Native Townships and at Nancefield Location, and at each township two trained native nurses are employed to assist in the work. The attendances at these Clinics and the activities of the Health Visitors are incorporated in the foregoing table. At all the European Clinics tea is provided for the attending mothers, principally through the good offices of the Women's National Service Fund, and nursing mothers are provided by the Council with foodstuffs and medical comforts when necessary. Very considerable amounts of such foodstuffs and comforts are provided. The Council also, by means of a coupon system, provides large quantities of pasteurised milk delivered at the home to poor mothers for consumption by infants who are not breast-fed or who have passed the breast-fed stage up to two years of age. The expenditure for pasteurised milk so supplied during the year was £1,500. Standard layettes are also provided for destitute mothers at the Central Clinic, where the mothers are provided with the necessary material free but are required to attend to make up the materials. At the Central Clinic one or other of the Health Visitors in attendance give regular health talks to the mothers attending. Nursery classes are also conducted at the Central and Milner Park Clinics by the voluntary social workers. It is hoped in the near future to establish nursery health classes for pre-school children as separate entities for the purpose of securing better health conditions, sound nutrition, and remedy of physical defects of the pre-school (2-7 years) child.

The Council's Pediatric Officer (Dr. B. G. v. B. Melle) attends all the clinics and deals with all infants who require specialised dietetic or medical attention.

Ante-Natal Nurses.—The Council employs four Ante-Natal Nurses, stationed at two Centres—Western and Central. These Ante-Natal Nurses are qualified general nurses and midwives. They extend ante-natal care to expectant mothers in the homes, shepherd these mothers to the Ante-Natal Clinics, arrange for their confinement in the Queen Victoria Maternity Hospital when desired, or themselves conduct the confinements in the homes.

Ante-Natal Clinics.—Two Ante-Natal Clinics are conducted on Tuesday and Friday afternoons at the New Market Buildings. The attendance, shown in the General Summary above, is increasing rapidly, and little difficulty is experienced in obtaining the attendance of expectant mothers at these Clinics. Two Obstetric Officers attend the Ante-Natal Clinics, and, besides carrying out the necessary procedure for the examination of expectant mothers attending the Clinics, render assistance, when necessary, at the confinements which the Ante-Natal Nurses conduct. This branch of Maternal and Infant Welfare is being taken advantage of by poor mothers in a rapidly increasing degree, thanks largely to the sympathetic and kindly attitude of both doctors and nurses. During the year the Ante-Natal Nurses attended 152 confinements, paid 2,131 post-confinement visits, and made 1,872 visits to expectant mothers in their houses prior to their confinements.

HEALTH PROPAGANDA.

The Department's activities on propaganda lines were continued during the year. The principal means of propaganda were:—

- (a) Compilation and distribution of leaflets on health subjects.
- (b) Exhibition of posters.
- (c) Publication and distribution of booklets on diverse health subjects.
- (d) Exhibition of posters and slogans by means of illuminated and mechanical machines.

At the Witwatersrand Agricultural Society's Show an extensive Health Exhibit was given. The exhibit included a Child Welfare Section, a comprehensive Dairy Section, a Food Section, a Rodent Section, a Water Section, and indeed sections dealing with most aspects of the public health. The exhibit was keenly inspected by large numbers of townsmen, townswomen and children, and also by large numbers of people from the countryside.

A most successful Fly Competition was held in collaboration with the "Sunday Times" during the months of October to January. The competition resulted in the destruction of 10,955,275 flies and the unearthing of 320 breeding-places of flies. Prizes to the amount of £97 10s. were distributed to successful competitors.

PNEUMONIA.

The death-rates per 1,000 from this disease are as follows:—

	Whites	Natives	Eurafricans	Asiatics	England and Wales
1920-21	0·76	2·69	3·17	2·58	0·99 (1920)
1921-22	0·77	2·70	1·81	2·58	0·91 (1921)
1922-23	0·45	2·26	2·49	2·58	1·07 (1922)
1923-24	0·68	2·73	2·38	2·42	0·87 (1923)
1924-25	0·71	2·82	2·31	2·86	1·00 (1924)
1925-26	1·06	4·42	4·71	3·03	0·95 (1925)
1926-27	1·13	4·68	6·07	5·73	0·82 (1926)
1927-28	1·47	5·09	4·46	5·30	0·94 (1927)
1928-29	1·50	5·48	3·29	7·00	0·78 (1928)
1929-30	1·74	7·03	4·77	7·66	1·10 (1929)

Pneumonia and acute lung conditions are responsible for over one quarter of the total deaths, viz., 26·7 per cent., which is a figure larger than in previous year. Deaths from these causes would appear to be progressively increasing every year, and the rate for the current year is the highest recorded for the past ten years for all sections of the population except Eurafricans. It is suggested that the prevention and treatment of acute lung conditions is of even more importance than cancer measures or traffic accidents.

MINERS' PHTHISIS, ROCK-DRILL PNEUMONIA OR SILOCOSIS.

52 deaths (33 Whites, 14 Natives and 5 Eurafricans) were registered during 1929-30, as compared with 91 (64 Whites, 24 Natives and 3 Eurafricans) and 52 (40 Whites, 11 Natives and 1 Eurafrican) in 1927-28 and 1928-29 respectively.

The rate is gratifying, and gives indubitable proof that underground conditions are much improved and continue to exercise the mining authorities in their efforts to diminish preventable dust conditions in the gold mines.

ORGANIC DISEASES OF THE HEART.

These heart affections include pericarditis, eudocarditis, angina pectoris, valvular diseases and other diseases of the circulatory system. The deaths recorded during the year 1st July, 1929, to 30th June, 1930, were 301 for Whites, as compared with 191 and 273 for the two previous years. This figure represents a rate of 1·65 per 1,000, as against 2·49 for England and Wales in 1927. For Natives the rate was 0·83; for Eurafricans 1·61; and for Asiatics 1·33.

DIARRHOEAL DISEASES.

The following are the mortality rates per 1,000 of population for the period under notice:—

	Whites	Natives	Eurafricans	Asiatics	Great Towns in England and Wales
1920-21	1·05	1·37	4·03	4·62	0·27 (1920)
1921-22	0·81	1·52	5·90	4·25	0·45 (1921)
1922-23	0·93	1·48	3·44	4·43	0·19 (1922)
1923-24	0·68	2·09	6·09	3·92	0·21 (1923)
1924-25	0·64	2·03	5·93	4·20	0·19 (1924)
1925-26	0·59	2·30	5·54	2·69	0·21 (1925)
1926-27	0·99	3·02	4·74	3·11	0·21 (1926)
1927-28	0·59	2·32	4·67	2·96	0·15 (1927)
1928-29	0·63	2·52	3·00	1·42	0·16 (1928)
1929-30	0·65	3·33	2·72	2·53	—

MALIGNANT DISEASE OR CANCER.

During 1929-30 the deaths from cancer numbered 208 Whites (including 32 non-residents), 29 Natives (including 6 non-residents), 13 Eurafricans (including 1 non-resident) and 4 Asiatics, as compared with 212 Whites (including 42 non-residents), 43 Natives (including 15 non-residents), 10 Eurafricans and 3 Asiatics in 1928-29 and 170 Whites (including 32 non-residents), 27 Natives (including 6 non-residents), 9 Eurafricans (including 1 non-resident) and 1 Asiatic in 1927-28.

Of the 208 Whites, 97 were males and 111 females, and 199 were over the age of 35 years, the rates being 0·78, 0·94 and 0·96 for the three years respectively, as compared with 1·42 per 1,000 for England and Wales in 1928.

In the following table is set forth the part of the body affected:—

	Whites			Natives			Eurafricans			Asiatics		
	1927-28	1928-29	1929-30	1927-28	1928-29	1929-30	1927-28	1928-29	1929-30	1927-28	1928-29	1929-30
Stomach	97	90	92	5	11	7	5	4	5	—	2	2
Womb	20	34	32	1	7	2	3	1	3	—	—	—
Breast	16	18	19	1	2	2	—	2	2	—	—	—
Liver	8	17	10	17	22	15	1	1	1	1	1	1
Neck and Throat ...	7	4	11	—	—	1	—	—	—	—	—	1
Mouth	2	4	—	1	—	—	—	—	—	—	—	—
Tongue	11	2	6	—	—	—	—	—	—	—	—	—
Lung	1	7	3	—	—	—	—	—	—	—	—	—
Rectum	2	10	10	1	1	—	—	—	1	—	—	—
Prostate	—	1	6	—	—	—	—	—	—	—	—	—
Head and Face ...	—	5	3	—	—	1	—	1	—	—	—	—
Bladder	—	5	—	—	—	—	—	—	—	—	—	—
Bones	1	—	4	—	—	—	—	—	—	—	—	—
Colon	—	5	3	—	—	—	—	1	—	—	—	—
Heart	—	1	—	—	—	—	—	—	—	—	—	—
Leg	1	2	—	—	—	—	—	—	—	—	—	—
Hand and Arm ...	—	1	1	—	—	—	—	—	—	—	—	—
Shoulder	—	1	—	—	—	—	—	—	—	—	—	—
Chest	—	—	1	—	—	—	—	—	—	—	—	—
Ear	1	—	1	—	—	—	—	—	—	—	—	—
Kidney	—	3	2	—	—	—	—	—	—	—	—	—
Glands	1	—	—	—	—	—	—	—	—	—	—	—
Spine	—	—	1	—	—	—	—	—	—	—	—	—
Unspecified	2	2	3	1	—	1	—	—	1	—	—	—
Total	170	212	208	27	43	29	9	10	13	1	3	4

As will be observed, there is a decrease in the deaths of Natives from this group of diseases for the present year, though there is little difference in the present rate from the rate in 1927-28.

MEASLES.

The death-rates per 1,000 were as follows:—

	1925-26	1926-27	1927-28	1928-29	1929-30
Whites	0·01	0·02	0·08	0·02	0·005
Natives	0·07	0·04	0·13	0·04	0·02
Eurafricans	—	0·15	0·21	—	0·05
Asiatics	—	0·16	0·15	0·14	—
Great English Towns ...	0·08 (1926)	0·09 (1927)	0·15 (1928)	—	—
England and Wales ...	0·13 (1925)	0·08 (1926)	0·09 (1927)	0·19 (1928)	—

VENEREAL DISEASE.

196 White and 1,822 Coloured cases of syphilis and other venereal diseases from Johannesburg were treated at Rietfontein Hospital during the year 1929-30.

VENEREAL CLINIC.

Statistical Report of Director for period 1st July, 1929, to 30th June, 1930.

1.—SUMMARY.

Out Patients		Specimens		Salvarsan	
No. of New Patients	No. of Attendances	No. sent to Institute	No. Examined at Clinic	No. of Patients treated with 606 or Substitutes	No. of Doses Administered
1,034	9,774	638	670	858	4,773

2.—ATTENDANCES AND DISEASES (OUT PATIENTS).

Attendances of New Patients								Attendances of Old Patients							
Gonorrhœa		Syphilis		Soft Chancre		Not V.D.		Gonorrhœa		Syphilis		Soft Chancre		Not V.D.	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
650	60	190	108	11	2	12	5	3,734	385	2,879	1,656	40	8	23	15

3.—LABORATORY. NUMBER OF SPECIMENS EXAMINED AND RESULTS OF EXAMINATION.

Clinic						Institute										Total Number of Specimens Examined
Gonococci		Spirochætes		Others		Gonococci		Spirochætes		Wasserman Test						
+	-	+	-	+	-	+	-	+	-	+++	++	+	-	?		
190	319	—	—	53	98	25	63	6	11	208	39	1	211	58		
															1,344	

REMARKS.

1. ATTENDANCES OF PATIENTS.—Compared with the previous year, 117 fewer cases attended. This decrease occurred amongst those patients who attended the department for gonorrhœal infections. It is, of course, unreliable to assume that this indicates a decreased incidence on gonorrhœal infections in the community. Should this, however, continue during subsequent years, it would serve as an encouraging feature, and would tend to indicate that the incidence of gonorrhœal infections is on the wane, and is falling in line with the marked decrease in the incidence of syphilis, which has been such a marked feature in recent years, not only in our own department, but also in English and Continental clinics.

2. During the current year the new Special Treatment Centre was officially opened by His Worship the Mayor, Councillor D. Anderson, in the presence of representatives of the Public Health Committee, Honorary Visiting and Consulting Members of the Johannesburg General Hospital Staff, and others interested in this branch of preventive medicine.

3. Your Director, in connection with the new centre, compiled a brochure on this "New Special Treatment Centre," which was circulated to all Councillors and members of the profession and others interested. In this brochure a detailed description of the equipment, administration and routine work of the centre, with photographs, is given.

4. During the current year your Director was permitted to take part in the post-graduate course arranged by the Witwatersrand University, when he gave four lecture demonstrations in the "Special Treatment Centre" to the seventy odd practitioners who attended the course.

HENRY GLUCKMAN,
Director.

OPHTHALMIA NEONATORUM.
CASES NOTIFIED.

				1927-28	1928-29	1929-30
Ophthalmia Neonatorum—						
Whites	...	...	...	18	6	8
Natives	...	...	...	2	2	3
Eurafricans	...	...	...	—	1	—
Asiatics	...	...	...	—	—	—
				20	9	11
Gonorrhœal Ophthalmia—						
Whites	...	...	...	6	6	5
Natives	...	...	...	—	3	2
Eurafricans	...	...	...	1	—	—
Asiatics	...	...	...	—	—	—
				7	9	7
All Cases—						
Whites	...	...	...	24	12	13
Natives	...	...	...	2	5	5
Eurafricans	...	...	...	1	1	—
Asiatics	...	...	...	—	—	—
				27	18	18

The decrease in this section is maintained and corresponds with the decrease of gonorrhœal cases in the Special Treatment Centre. It reflects credit on the Ante-Natal Clinic and the Special Treatment Centre.

NOTIFIABLE INFECTIOUS DISEASES.

During the year under notice, 2,062 cases were notified, viz., 838 amongst Whites, 1,183 amongst Natives, 26 amongst Euraficans, and 15 amongst Asiatics. These occurrences are discussed elsewhere in this Report.

The procedure adopted in regard to notified infectious diseases, disinfection, etc., has been the same as recorded in previous years.

1,198 houses and 17,970 articles of clothing, bedding, etc., were disinfected.

SMALL-POX.

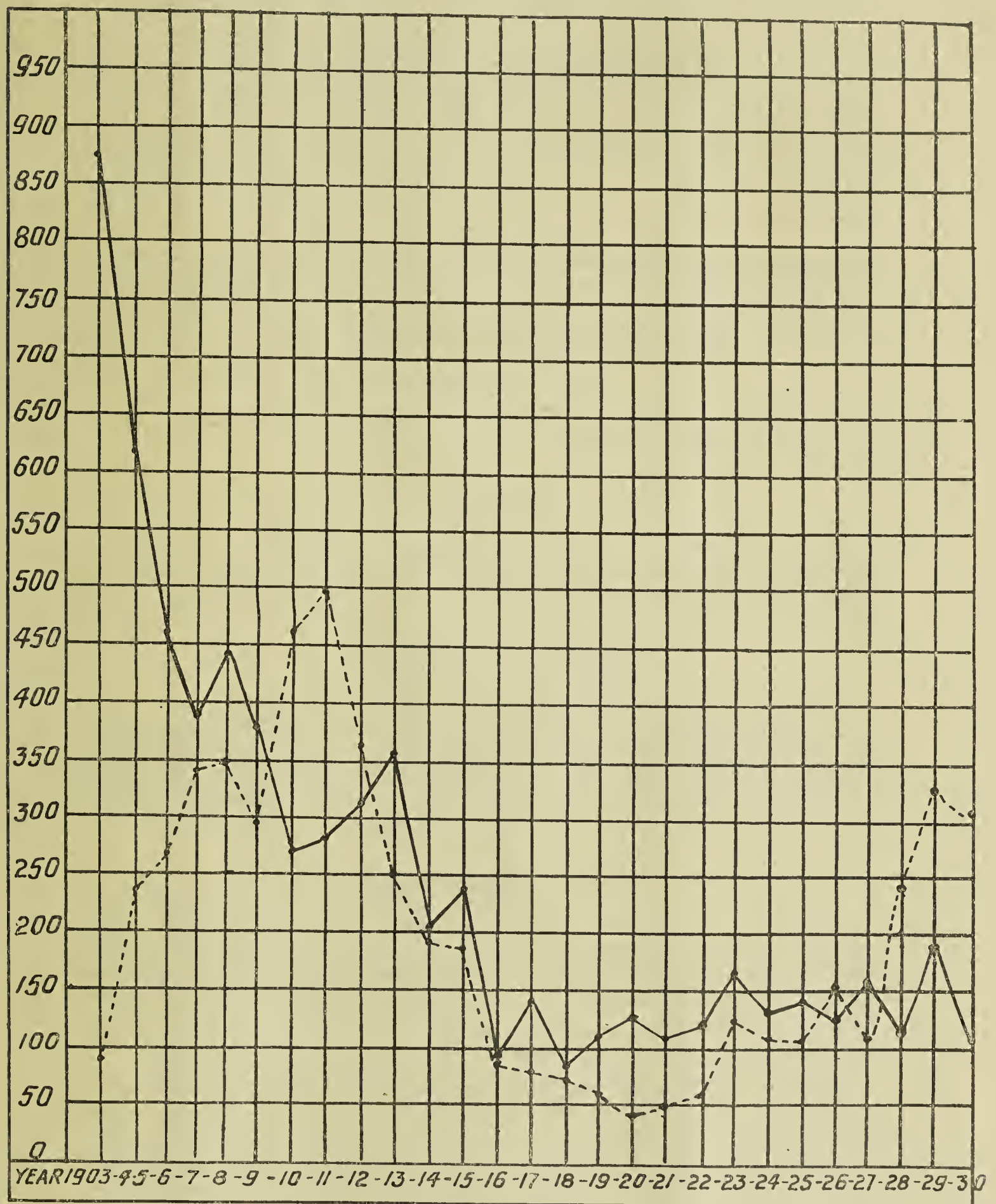
No cases of this disease were reported during the year.

ENTERICA.

In the following is set forth the number of cases, and deaths, together with the case-rate per cent. and the death-rate per 1,000, and the death-rate for England and Wales:—

				1927-28				1928-29				1929-30			
				Cases	Deaths	Case-rate %	Death-rate	Cases	Deaths	Case-rate %	Death-rate	Cases	Deaths	Case-rate %	Death-rate
Whites	...	...	...	120	19	15·83	0·10	182	26	14·28	0·14	103	19	18·44	0·10
Natives	...	...	...	244	103	42·21	0·70	328	99	30·18	0·60	312	86	27·56	0·58
Eurafricans	...	...	...	6	—	—	—	11	5	45·45	0·29	8	1	12·5	0·05
Asiatics	...	...	...	4	1	25·00	0·15	3	2	66·66	0·28	10	1	10·0	0·13
England and Wales	...	...	...				0·09 (1927)				0·011 (1928)				0·010 (1929)

Yearly Incidence of Enteric Fever in the 27 Years, 1903-4 to 1929-30.



Whites—Continuous Line.

Natives—Dotted Line.

Though the incidence in Whites has decreased appreciably, the increase of incidence in Natives continues. This increase in the Native incidence—mostly on mine Natives—is the subject of particular investigation in co-operation with the mine authorities.

ERYSIPELAS.

32 White and 8 Native cases of erysipelas were notified in 1929-30, as compared with 29 White and 23 Natives in 1927-28 and 27 White, 14 Native, 1 Eurafrian and 1 Asiatic case in 1928-29.

MENINGITIS.

The following table shows the registered number of deaths, with death-rates, from meningitis during the triennium 1927-30:—

			1927-28		1928-29		1929-30	
			Deaths	Death-rate	Deaths	Death-rate	Deaths	Death-rate
Whites	...	...	36	0·20	55	0·30	29	0·10
Natives	...	...	87	0·59	73	0·49	74	0·50
Eurafricans	...	...	9	0·56	4	0·23	2	0·11
Asiatics	...	...	2	0·31	3	0·42	2	0·26

The death-rate and incidence is generally lower than in previous years.

INFANTILE PARALYSIS.
(Acute Poliomyelitis.)

No cases were reported in 1929-30, as compared with 1 White case in 1927-28 and 4 Whites in 1928-29.

LEPROSY.

23 Native cases and 1 Eurafrian were notified in 1929-30. All these cases were infected before arrival in the Municipal Area and were transferred to the Government Leper Institute in Pretoria.

PLAGUE PREVENTION.

No cases of plague occurred during the period under review.

All rodents found dead, all rodents obtained from railway trucks and a proportion of trapped rats are sent to the South African Institute for Medical Research for bacterial examination. During the year 1929-30, of the 12,084 rats and 2,123 mice caught, 3,367, or 27·58 per cent., were so examined; none was plague-infected. 73 rats were also sent for examination by certain mines.

CITY RODENT WORK.

1,200 visits of inspection have been made by the City Rodent Staff; 104 premises, including bioscopes, theatres, grain stores, furniture stores, cafes, restaurants, refuse tips and private houses were specially dealt with and advice given for the destroying of rodents and rendering premises rodent-proof.

As a result of these measures, the owners of many large buildings now constantly employ private rat-catchers.

Stocks in grain stores and the Municipal Market have been frequently “ turned over ” and numbers of rats have been destroyed by trained Municipal dogs.

7,800 trucks conveying produce have been examined at the Kazerne and Newtown Railway Sidings. Municipal dogs are employed in this work.

Two trading licences were refused where owners would not comply with rodent proofing requirements of building.

A number of experiments have been made to prove the efficiency or otherwise of various declared rat poisons.

SCARLET FEVER.

In 1929-30 there were 453 White, 2 Native and 1 Eurafrian cases of this disease. There were no deaths among the White population. In the two previous years the cases notified were 1,246 (including 5 Natives in 1927-28 and 1,321 (all Whites) in 1928-29, the mortality rate being 0·005 and 0·07 per 1,000 respectively. The rate per 1,000 in England and Wales for 1929 was 0·018.

The decrease in the incidence is not unexpected, following as it does two years of high incidence.

TYPHUS.

No cases were reported in 1929-30, as against 12 Natives in 1927-28 and 3 Natives in 1928-29.

DIPHTHERITIC DISEASE, INCLUDING MEMBRANOUS CROUP.

The occurrences of diphtheritic disease in 1929-30 numbered 149 (138 Whites, 6 Natives, 4 Eurafricans and 1 Asiatic), in 1927-28 188 (187 Whites and 1 Native), and in 1928-29, 169 (159 Whites, 3 Natives, 3 Eurafricans and 4 Asiatics). The case mortality for Whites being 9·37, 11·22 and 11·88 per cent. for the respective years in order mentioned above, and the death-rate per 1,000 was 0·11 in 1927-28, 0·08 in 1928-29 and 0·09 in 1929-30, as compared with 0·087 for England and Wales in 1929.

PUERPERAL SEPTICÆMIA, ETC.

In 1929-30 50 cases (31 Whites, 13 Natives, 3 Eurafricans and 3 Asiatics) were reported, as compared with 31 (19 Whites, 11 Natives and 1 Asiatic) in 1927-28 and 53 cases (27 Whites, 15 Natives, 7 Eurafricans and 4 Asiatics) in 1928-29. The death-rate for 1929-30 was 0·02 per 1,000 for Whites, as against 0·013 in England and Wales in 1929.

ANTHRAX.

One Native case of this disease was notified in 1929-30.

INFLUENZA.

The number of registered deaths from influenza during the year was 13 Whites and 14 Coloured persons. These figures as compared with most years are insignificant.

ENCEPHALITIS LETHARGICA.

One case was notified in 1929-30, as against none in 1927-28 and three in 1928-29. Three White, five Native and one Asiatic deaths were registered. The attention of medical practitioners is called to the fact that encephalitis lethargica is a notifiable disease.

TUBERCULOSIS.

Appended is a statistical summary of the mortality from tuberculosis in Johannesburg for the years 1927-28, 1928-29 and 1929-30:—

DEATH-RATE PER 1,000.

	Pulmonary Phthisis			Other Forms of Tuberculosis		
	1927-28	1928-29	1929-30	1927-28	1928-29	1929-30
Johannesburg—						
Whites	0·29	0·28	0·35	0·07	0·02	0·04
Natives	1·16	1·29	1·29	0·76	0·62	0·36
Eurafricans	1·20	1·41	1·50	0·63	0·29	0·16
Asiatics	0·78	1·00	0·93	0·15	0·57	0·13
England and Wales ...	1927 0·791	1928 0·755	1929 0·793	1927 0·181	1928 0·173	1929 0·166

Notification of Tuberculosis.—639 notifications were received during 1929-30, namely, in regard to 10 Whites, 621 Natives, 7 Eurafricans and 1 Asiatic.

BACTERIOLOGICAL DIAGNOSIS.

The following are particulars of the specimens examined under this heading for the City Council at the South African Institute for Medical Research during the year 1929-30:—

Disease.	Positive.	Negative.	Doubtful.
Typhoid	569	2,175	1
Tuberculosis	521	16	—
Diphtheria	407	1,798	32
Gonococcus	10	7	—
Leprosy	2	34	—
Bilharzia	1	2	—
	1,510	4,032	33

The figures do not include rats examined for suspected plague (vide p.).

ISOLATION HOSPITALS.

Fever Hospital.—The number of White cases treated at the Fever Hospital in Johannesburg was 307, as follows: Diphtheria 117, scarlet fever 163, measles 15, chicken-pox 6, erysipelas 4, whooping cough 1, and puerperal septicæmia 1.

The cost of the upkeep of the Fever Hospital for 1929-30 was £11,178 4s. 4d.; the Government refunded 50 per cent. of this amount.

In the course of the year the new Observation Block of the Fever Hospital and the new Residential Nurses' Block were opened by His Worship the Mayor (Mr. Councillor D. Anderson). The new Observation Block, designed on the very latest lines, does much credit to the Council. Without exaggeration, it is perhaps the most up-to-date example of hospital ward construction in South Africa. Much of the credit for its construction is due to the advice of Dr. R. P. Mackenzie, the late Superintendent of the Johannesburg Hospital.

Springkell Sanatorium.—8 non-miners suffering from tuberculosis were being treated at the Springkell Sanatorium on 1st July, 1929, and 16 fresh cases were sent there during 1929-30, 6 patients died and 14 left. The cost of treatment of these cases was £1,936 10s., of which Government refunded 50 per cent.

Rietfontein Hospital.—9 White cases of venereal, 3 measles, 3 erysipelas, and 1 each enteric, scarlet fever, mumps and tuberculosis, and 38 Native cases of chicken-pox, 20 leprosy, 2 suspect small-pox, 23 measles, 9 diphtheria, 1 erysipelas, 1 meningitis, 5 mumps, 13 venereal disease and 3 scarlet fever were removed for treatment to the Rietfontein Hospital. Rietfontein Hospital was paid £427 16s. for these services, 50 per cent. being refunded by Government.

AMBULANCE REMOVALS.

During the period under review 19 White Cases and 114 Coloured were removed to Rietfontein Hospital, and 307 White cases to the Fever Hospital. In addition, 3 White patients were removed to the Johannesburg Hospital, 18 Patients to the Non-European Hospital, 16 Whites to Springkell Sanatorium, and 2 Whites to Private Hospitals. Six cases were also removed from outside districts at the request of, and on payment by, the local authorities concerned.

NURSING HOMES.

There are 38 nursing homes in Johannesburg, all of which are periodically inspected by District Inspectors or Health Visitors and the Technical Medical Staff.

LIVE STOCK MARKET AND PUBLIC ABATTOIR.

The following figures have kindly been supplied by the Director, Abattoir and Live Stock Market.

During 1929-30 1,199,463 animals passed through the Live Stock Yards, and 112,517 cattle, 386,176 sheep, etc., 12,747 calves and 70,120 pigs, or a total of 581,560 animals, were slaughtered at the Abattoir; 1,355,104 lbs. imported meat was inspected; and 1,544,783½ lbs. meat was condemned.

INSPECTION OF FOODSTUFFS.

The following goods were condemned by the Food and Drugs Inspectors:—Fish, 64,398 lbs.; smoked fish, 110 boxes; haddock, 56 boxes; sausages, 495 lbs.; fruit, 469 boxes; mushrooms, 21 tins; hares, 29; crayfish, 250; fillet, 113 boxes; herrings, 48 boxes; kippers, 4 boxes. During the period under review they passed 507,437 lbs. of bacon, etc., 10,049,167 lbs. of fish, 7,338 lbs. Margarine and 1,733 lbs. of cheese.

ANALYSIS OF FOODS, ETC.

Milk.—Appended is a tabulated summary of the results of analyses and prosecutions.

	1927-28	1928-29	1929-30
Number of Samples taken ...	544	530	513
Number examined bacterially .	45	—	41
Number deficient Solids-not Fat	16	38	31
Number deficient Fat	18	23	24
Number of Preservatives ...	—	4	—
Number of Prosecutions ...	14	8	3
Amount of Fines	£27	£14 10s.	£3

In addition to the 824 water examinations (see page 25), 552 articles of food, etc., were examined during 1929-30 at the Government Laboratories. Details are appended:—

Description.	Genuine or Pure.	Adulterated or Impure.
Milk	467	46
Smoked Sprats	1	—
Pepper	11	1
Nutrine	1	—
Coffee	19	1
Flock	3	1
Aerated Water	1	—

This is 3·05 samples per annum per 1,000 of the white population.

MILK SUPPLIES AND DAIRY INSPECTION.

Milk control is exercised by inspection of dairies inside the Municipal Area and inspection of dairies outside the Area.

(a) INSPECTION OF DAIRIES INSIDE THE MUNICIPAL AREA.

Apart from routine inspection of dairies by District Health Inspectors, the following synopsis shows the inspections made and duties carried out by the City Dairy Inspector.

Retailer Producer Section (Inside Area).—The number of producing dairies scored quarterly was 120, which is 30 in excess of the previous year, with the increase chiefly in the Western Area, which is probably due to the proximity of the large Native Township where large quantities of milk are hawked daily. The highest score awarded was 93·75 per cent. and 106 scored over 50 per cent., an increase of 28 over the previous year.

Retailer Producer Section (Outside Area).—There are 34 Outside Dairies from which milk is retailed in Johannesburg. The highest score awarded was 99 and the scores ranged from 80 per cent. to 99 per cent. The figures indicate that the outside producers are generally in advance in the matter of clean milk production of the producers within the Council's area.

Raw Milk Depot Section.—There were 36 Raw Milk Depots scored, which is an increase of 15 over the previous year. The highest score awarded in this section was 99 per cent., sixty per cent. were awarded 80 per cent. or over of the marks, and forty per cent. scored less than 80 per cent. of the marks.

Milk Pasteurising Depot Section.—5 Pasteurising Depots were scored. The highest score was 99·25 per cent. and all Depots scored over 80 per cent.

Yearly Competition Open to all Sections for Gold Medal and Certificate of Merit Awards.—This competition was conducted during the closing months of the year, and the results were highly satisfactory. A total of 7 Gold Medals and 29 Certificates of Merit were awarded in the different sections. No producer can enter for this competition unless he has scored 90 per cent. or over of the total scorecard marks for the four quarters of the year. The milk supply of producing competitors and depot competitors in this competition were further subjected to bacterial, chemical and sediment tests in order to arrive at the final award.

The following table shows the results:—

MAXIMUM MARKS OBTAINABLE: 160.

Section	Gold Medals Awarded	Certificates of Merit Awarded	Highest Marks Gained
Retailer Produceer Section (Inside Area)	2	10	151·45
Retailer Producer Section (Outside Area)	2	12	152
Raw Milk Depot Section ...	2	7	150·075
Milk Pasteurising Depot Section ...	1	—	140·25

NOTE.—In the Retailer Producer (Inside and Outside Areas) and Raw Milk Depot Sections, three medals were awarded to the competitors whose milk showed the lowest bacterial count. It is noteworthy that the two lowest bacterial counts, taken on surprise visits, were respectively 3,000 per c.c. in the case of inside producers, 1,600 per c.c. in the case of outside producers, and 3,000 per c.c. in the case of raw milk depots.

Whilst this competition could be improved upon by more frequent bacterial analyses during the year, it is not possible in view of difficulties in making arrangements with the Laboratory to extend bacterial sampling.

Tests for Visible Dirt.—Numerous tests were made in the course of routine inspections for the presence of visible dirt in milk. Unsatisfactory dirt tests were immediately investigated and remedied.

Exhibit at Rand Show.—The Department's exhibit at the Rand Show was much appreciated and well attended by dairy producers in the Municipal Area.

Students' Visit.—The students of the Potchefstroom School of Agriculture paid their annual visit and were shown dairying conditions in all forms at premises of local and (near) outside dairies. The principal of the School recorded his appreciation of the opportunities afforded by the Department of seeing practical dairying in terms of the City Council's requirements.

Educational Facilitics to Outside Bodies.—Numerous requests have been received by the Department to supply the Department's extensive dairying literature for educational purposes. Such requests have been received from a number of agricultural colleges and local authorities throughout the Union and have been complied with to the fullest extent of the Department's resources.

(b) INSPECTION OF DAIRIES OUTSIDE THE MUNICIPAL AREA.

With regard to outside dairies the following particulars are submitted:—

Number and Situation of Dairy Farms.—The number of dairy farms supplying milk to Johannesburg during the period under review was 318. These farms are situated in the districts of Potchefstroom, Ventersdorp, Witwatersrand, Rustenburg, Pretoria, Vereeniging, Heidelberg, Standerton, Bethal and Ermelo, in the Transvaal, and in the northern parts of the O.F.S.

Quantity of Milk Introduced per Diem.—Approximately 14,000 gallons of milk are introduced daily into Johannesburg. This amount is about two-thirds of the milk supply to the City. The results of analysis show that the quality of milk is of a high standard.

Applications for Permits to Introduce Milk into Johannesburg.—Applications received, 347; granted, 318; refused, 29.

Applications for Licences to Retail Milk in Johannesburg.—Applications received, 40; granted, 40.

Inspection of Dairy Premises.—Systematic and regular inspection of all dairies supplying milk to Johannesburg has been carried out and the results of such inspections have been carefully reported to, and dealt with, by the M.O.H. Two permits were cancelled on the grounds of insanitary conditions of dairy premises.

The total number of inspections made was 1,503.

Score Card Inspection.—Under this system 34 outside dairies licensed to sell milk in Johannesburg were inspected and scored quarterly.

The scores ranged from 80 to 99 per cent.

Control of Milk Supplies.—Periodical visits to railway stations in Johannesburg and those in outer districts have been made with the object of checking supplies of milk arriving in, or being despatched to, Johannesburg. Five supplies from unpermitted sources were discovered. Further supplies from these sources were prohibited.

Tests for Visible Dirt in Milk.—This test, which is applied by passing a pint of milk through a cotton-wool pad of small area, thereby arresting and rendering visible all solid impurities, was applied to 277 supplies of milk on dairy farms or at railway stations. The results generally were satisfactory, but when dirty pads were obtained the milk producer was dealt with immediately.

Widal Tests.—198 persons engaged in the production and handling of milk submitted themselves to this test. Three were found to be carriers of Enteric Fever and were immediately isolated and placed under special treatment.

Exhibit, Rand Agricultural Show.—At the Rand Agricultural Show an exhibition of approved dairy appliances, together with practical demonstrations in the cooling and handling of milk, and in the cleansing and sterilising of utensils was given by the dairy section of the staff. This exhibition was greatly appreciated by those engaged in the milk trade.

It is desired to express thanks to the officials on the S.A.R., particularly those at Johannesburg Station, for their assistance in connection with milk inspection on railway property.

WATER SUPPLY.

Water is supplied in bulk by the Rand Water Board to the City Council. The Council controls the distribution of water throughout the city and owns the reticulation. The following table shows the quantity and percentage of water pumped from various sources by the Rand Water Board and is taken from the Twenty-fifth Annual Report of the Chief Engineer, Rand Water Board:—

Source	Total Quantity Pumped during Year ending 31st March, 1930	Percentages
	Gallons	
From Swartkopjes	935,473,000	15·88
From Zuurbekom	1,400,448,000	23·77
From Vaal River	3,555,479,000	60·35
Grand Total	5,891,400,000	100·00

The length of mains within the Municipal Area is now 496·61 miles, 19·30 miles having been added during 1929-30, while during the same period 2,217,025,800, or 6,074,043 gallons of water per day, were supplied to consumers connected to same.

CHEMICAL AND BACTERIOLOGICAL EXAMINATIONS.

793 samples of water were taken for examination during the year 1929-30, also 31 samples from private boreholes and wells.

It is desired to acknowledge the obligation of the city to the officials of the Rand Water Board, who are at all times so assiduous in securing an adequate and pure supply of water to the city.

SEWERAGE.

The City Engineer has kindly supplied the following information:—

On 30th June, 1930, there were 257·82 miles of sewers completed.

On the same date 26,986 premises had been connected.

It is noteworthy that the Council continues to pursue a progressive policy in regard to sewerage extension, and that it has in hand the establishment of up-to-date sewage disposal works as an auxiliary to the out-of-date methods of sewage disposal at the Klipspruit Sewage Farm, which, however, are being very greatly improved. The increase in "premises connected" is substantial, and it is hoped will continue to increase "pari passu" with the extension of available connections.

MINES SANITATION.

The usual procedure has been carried out in regard to systematic inspections of the mining properties in the Johannesburg area.

This work has included frequent inspections of all Native compounds, hospitals and locations, married and single White quarters, contractors' compounds, brickfields, dairies and cowsheds, Native eating houses, stone crushing works, mine boarding houses, railway stations and quarters, pumping and power stations, disposal of refuse, the sanitary arrangements at the various works and the supervision of the daily cleaning up and scavenging at all places and premises on the surface.

All plans submitted in regard to new, or additions and alterations to existing housing accommodation, drainage or other sanitary requirements have been examined by the Medical Officer of Health and amended when necessary.

All cases of infectious disease among Whites, Natives and Coloured persons have been visited, inquired into and reported on in the usual way.

As the result of reports and suggestions made by your Inspectors, considerable improvements have been effected throughout the various mining properties during the year.

UNDERGROUND SANITATION.

Systematic inspections are made in regard to underground sanitation of all mining properties in the Johannesburg area. This supervision includes the inspection of all sanitary arrangements on all levels, working places, stations; the inspection of disused stopes, ladderways, etc., and the provision of suitable drinking water supplies on each level.

It is very satisfactory to be able to report that the work of supervising sanitary work and cleansing methods underground is carried out by white men, and there is no doubt that this accounts for the general high standard which has been maintained throughout the year.

It is desired to acknowledge the ready, reasonable and sympathetic attitude of Mine Managers in regard to requirements called for by the department.

The Government Mining Engineer and the Director of Native Labour have been kept in close touch with the general work of mine sanitation under the department's direction.

HOUSING AND INSANITARY PROPERTIES.

During the year Closing Orders were applied for by the Council and granted by the Courts under Section 74 of Local Government Ordinance No. 11 of 1926 in respect of 143 insanitary properties. Two demolition orders were also obtained. The properties concerned were situated in the following townships, viz., Booysens, Ophirton, Marshalls, Ferreiras, Troyeville, Johannesburg. Doornfontein, Fordsburg, City and Suburban, Jeppestown, North Doornfontein, Wolluter and Newtown.

In the majority of cases the owners at once took steps to reconstruct or recondition the properties so as to bring them into conformity with the Council's requirements. In a number of cases, however, the buildings were so dilapidated that the owners decided to demolish and erect in their place entirely new structures. A striking example of entire remodelling is the large block in Market Street on the north-west corner of Ferreirastown, formerly known as the "Tramway Buildings," one of the worst, most unsightly, and most extensive slums in the city, which has now been replaced by an up-to-date block of shops and rooms.

Insanitary premises or slums in Johannesburg are in a somewhat different category to those in older cities and older countries, because many of the structures were never intended for human habitation but have been converted for native occupation. While that is so, many of these "slums" are kept wonderfully clean and tidy by their native occupants.

In order to deal systematically and more effectively with the slums generally, complete surveys have been or are in process of being made in the various townships. The surveys completed show that a large number of properties will require to be dealt with, the main reasons being bad structural condition, want of efficient means of light and ventilation and overcrowding of buildings on site.

In addition to the properties referred to, large numbers of single rooms occupied by native employees in yards were dealt with under the Public Health Act.

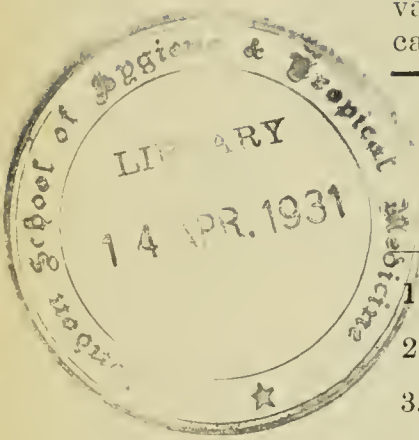
ANNUAL RECORD OF DUTIES PERFORMED BY DISTRICT INSPECTORS ONLY.

From 1st July, 1929, to 30th June, 1930.

INSPECTIONS.			
BUILDINGS—		CYANIDE FUMIGATIONS—	
Repairs to	591	Supervised	2,229
Unauthorised	220	INFECTIOUS DISEASES—	
CLOSETS AND URINALS—		Cases Investigated	377
Inspected	6,891	Contacts	90
Additional Provided	168	Vaccination	4
French Drains	993	Licensing Court	127
HOUSES—		LICENSED PREMISES—	
Dwellings	10,438	Aerated Water and Ice Factories	346
INSANITARY DWELLINGS—		Asiatic Eating Houses ...	235
Notices	184	Bakeries	1,149
Visits	1,080	Barbers' Shops	1,431
Demolished	41	Bioscopes	383
Vacated	91	Boarding Houses	585
INTERVIEWS—		Butchers' Shops	3,313
Owners, Agents, etc.	3,444	Cowsheds	1,912
Native Housing	4,437	Dairies	1,049
NUISANCES—		General Dealers	5,218
Animals	591	Hotel Dining Rooms	694
Drainage	917	Ice Creameries	320
Fly	343	Kaffir Eating Houses	2,007
Manure	877	Laundries	725
Mosquito	130	Lodging Houses	250
Rats	132	Milk Shops	1,840
Refuse	600	Noxious Trades	1,463
Slopwater	523	Nursing Homes	299
Smoke	126	Private Cows	732
Stables	1,458	Restaurants	1,098
Unspecified	1,865	Tea Rooms	2,815
SAMPLES TAKEN—		NOTICES SERVED—	
Water	30	Statutory	2,473
Service Complaints	353	Others	1,774
Slum Properties	3,919	Prosecutions	46
Miscellaneous	102	Attendance at Court	59
Wells and Boreholes	479		

LICENSED PLACES.

From 1st July, 1929, to 30th June, 1930, 4,843 applications for licences of various kinds have been dealt with, the premises in question being in all cases carefully examined as to sanitary requirements.



	1929-30		
	Granted	Refused or not taken out	Total
1. Tea Shops, Eating Houses, Restaurants, etc.	1,046	160	1,206
2. Dairies	242	39	281
3. Milk Shops	328	61	389
4. Butchers' Shops	655	114	769
5. Private Cowkeepers	187	30	217
6. Bakers and Confectioners	107	13	120
7. Permits to introduce Milk	281	72	353
8. Kaffir and Asiatic Eating Houses	176	74	250
9. Nursing Homes	38	11	49
10. Laundries	50	30	80
11. Ice Creameries	345	32	377
12. Noxious or Offensive Trades	274	41	315
13. Aerated Water and Ice Factories	28	1	29
14. Hairdressers and Barbers	345	55	400
15. Lodging House	5	3	8
	4,107	736	4,843

PROSECUTIONS.

Fifty-eight persons were prosecuted for various breaches of the Public Health Act and By-laws, 55 were convicted, and fines aggregating £91 10s. were imposed. Particulars are appended:—

By-laws Infringed.	Race of Accused.			Totals.
	Whites.	S.A. Coloured	Asiatic.	
Prevention of Nuisances ...	22	3	10	35
Sale of Food and Drugs ...	9	—	2	11
Dairies and Milk Shops ...	1	2	3	6
Butchers	3	—	—	3
Kaffir Eating Houses ...	1	—	—	1
Housing Natives	1	—	—	1
Bakery	1	—	—	1
Totals ...	38	5	15	58
RESULTS—				
Convicted and Fined ...	32	4	15	51
Convicted and Cautioned	3	1	—	4
Dismissed	2	—	—	2
Withdrawn	1	—	—	1
Prohibition Order Granted	11	—	4	15
AMOUNT OF FINES ...	£69 0 0	£6 0 0	£16 10 0	£91 10 0

This work is supervised by the Medical Officer of Health, under whose directions proofs of evidence, summonses, subpoenas and charge-sheets are prepared and handed to the Council's Solicitors.

